

Response to BEIS consultation proposals regarding the planning system for electricity storage

25 March 2019

About Energy UK

Energy UK is the trade association for the GB energy industry with a membership of over 100 suppliers, generators, and stakeholders with a business interest in the production and supply of electricity and gas for domestic and business consumers. Our membership covers over 90% of both UK power generation and the energy supply market for UK homes. We represent the diverse nature of the UK's energy industry – from established FTSE 100 companies right through to new, growing suppliers and generators, who now make up over half of our membership.

Our members turn renewable energy sources as well as nuclear, gas and coal into electricity for over 27 million homes and every business in Britain. Over 680,000 people in every corner of the country rely on the sector for their jobs, with many of our members providing long-term employment as well as quality apprenticeships and training for those starting their careers. The energy industry invests over £12.5bn annually, delivers around £84bn in economic activity through its supply chain and interaction with other sectors, and pays £6bn in tax to HM Treasury.

Executive Summary

- Energy UK welcomes the opportunity to comment on the proposals for the treatment of electricity storage projects within the Planning System.
- We welcome recognition within the consultation document that Government wants to ensure that the regulatory framework is as clear as possible for electricity storage in order to promote confidence in the sector, and in turn encourage investment and deployment.
- This consultation offers an opportunity to assess whether the current system is fit for purpose to support the consideration of planning applications for electricity storage projects, and to identify potential barriers to the deployment of electricity storage. Unfortunately, the current proposals set out in the consultation document do not, in our view, address the planning aspects of these barriers.
- Energy UK disagrees with the key findings of the analytical assessment carried out to support this consultation. Developers would benefit greatly from the unit of the threshold being amended to MWh, and set at a sensible level of at least 500MWh (detail on the rationale for this threshold is given in response to Q2).
- We consider a 50MW threshold to be preventing developers from developing stand-alone battery storage projects larger than this. This threshold is inappropriate for electricity storage schemes for two reasons; 50MW is an unnecessarily low threshold, and a capacity threshold has no bearing on the impact that a storage projects has on an area.
- Whilst we agree that any policy reform should not confer preferential treatment on a specific technology, the proposal to retain the 50MW threshold for electricity storage projects will disadvantage electricity storage proposals as the additional time, resource and cost implications of the more onerous, lengthy and expensive NSIP process is disproportionate to the potential impacts of the projects being brought forward.
- We note that electricity substations which are similar in size and characteristics to many energy storage proposals, and have many of the similar potential environmental impacts, are, unless developed on DNO sites, generally consented via the Town and Country Planning Act 1990 (TCPA) process (unless they are linked to projects going through the NSIP process.).

- We therefore ask BEIS to consider further amending the threshold for electricity storage projects within the NSIP regime to ensure the planning and decision-making process is proportionate to the potential impacts of each project. The retention of electricity storage projects over 50MW within the NSIP regime may ultimately deter investment and impact energy security given the prohibitive fee structure for this size and scale of project and the increased time and resources required to progress via this consenting mechanism.
- If BEIS is unwilling, or unable to amend the thresholds in the Planning Act (2008), we suggest that a screening approach is adopted for developments that breach the threshold, but clearly have such a small impact as to make a full NSIPs application inappropriate. However, we would like to emphasise that this is our second preference, and we consider the most appropriate way to enable the sustainable development of storage projects to be by changing the NSIPs threshold to at least 500MWh.

Response to Consultation Questions

1. The analytical assessment in Annex A that supports this consultation explores the costs and benefits of the preferred policy option. Do you agree with the analytical assessment and the assumptions that underpin it?

Without more detailed information on the evidence underpinning the assessment, it is difficult to make any firm conclusions as to the accuracy of the potential costs and benefits of the preferred policy option. We do however question the conclusion within the consultation document (page 16) that there is limited evidence to suggest that the existing planning threshold distorts the sizing and investment decisions of storage developers, given the subsequent statement that developers of electricity storage projects “*could be expected to incur some additional costs by going through the NSIP regime rather than under the TCPA system due to the additional resource needed to produce the applications and the additional time (1-2 years) it takes to obtain consent*”. The additional time, resource and cost implications of a more onerous, lengthy and substantially more expensive planning process is disproportionate to the potential impacts of the projects being brought forward, and in our view, this is likely to have significant implications for developers considering electricity storage developments, and may ultimately disadvantage the electricity storage sector and impact the build out of electricity storage in the GB market. A significant number of projects have been, or are being, developed with a 49MW capacity; it is no coincidence that this is just below the NSIPs threshold.

In order to make a balanced decision, with full consideration of the potential costs and benefits to the industry of the proposals, we would welcome further information on the potential costs of the five options considered, rather than the one preferred option as currently presented.

As set out in response to the questions below, Option 3 (amend unit of threshold (to MWh instead of MW)) and Option 4 (raise level of threshold for electricity storage) are our preferred policy options for a number of reasons, including the associated time, resource and cost implications of the current regulatory regime for electricity storage projects. The rationale for discounting Options 3 and 4 is fundamentally flawed as it is incorrect to say that these thresholds are “*not significantly distorting sizing and investment decisions*”. Developers discount proposals for battery storage projects above 50MW at the earliest stages of development due to the cost of, and time taken to get, a Development Consent Order through the NSIPs process. We therefore consider that developers would benefit greatly from the unit of the threshold being amended to MWh, and set at a sensible level of at least 500MWh.

2. Do you agree with our conclusion that it would be disproportionate to amend the threshold for triggering the NSIP regime?

No, we do not support this conclusion. Whilst we agree that the planning system should not confer preferential treatment on a specific technology, we equally recognise that such a system must be proportional and risk-based and should reflect the impact of the project. We do not consider the current 50MW threshold for electricity storage projects to be proportionate in terms of the time, resources and cost of progressing an electricity storage project via the NSIP process, and may ultimately disadvantage the electricity storage sector for the following reasons:

Metrics

We support the statement in the consultation document that using MWh as a metric would more accurately reflect the planning impacts of battery storage, particularly with regards to the size of project, the volume of electricity that it can store, and the duration of charging and discharging.

We consider it sensible to assess projects using metrics that are better linked to the impact that a project would have. For conventional electricity generation projects, the export capacity tends to link strongly to the impact of the development and operation of the site; however, for battery storage projects, it is the storage volume that is linked to the development's impact, not its export capacity. For example, a 25MW project capable of storing 1,000MWh would be far larger and therefore have a more significant impact on the local area than a 100MW project capable of storing 250MWh.

A threshold based upon export capacity prevents operators from increasing the capacity of sites when more cells are added; although these cells can be added without triggering the threshold if they increase the amount of electricity stored without a change in export capacity. This is unnecessarily restrictive, as it does not provide any extra control over the development that can be carried out at the site, but it does prevent developers from offering a potential useful service to the grid (i.e. higher export capacity).

On the upper end of the scale, we have calculated that a 2,000MWh battery would occupy a site of c. 5-8 ha. Given that the average density of residential addresses surrounding a newly created residential address was 32 addresses per hectare¹, a 2,000MWh battery would roughly have a similar footprint to a development of c.200 homes. and yet. However, the battery storage development would be subject to the NSIP regime despite having a much lower impact on the local environs than a housing development (which would *not* be required to go through the NSIP process).

In the future, we would expect to see battery technologies develop that would allow longer duration batteries to be implemented, with the consequence that under the current approach a 1MW/1h battery would be considered in the same manner as a 1MW/8h despite the different scale and appearance. We note that more complex formulae would be required to determine whether the NSIP threshold had been reached for composite projects (e.g. adding MW to MWh) but given the complexity of the information already required to support planning applications for electricity storage projects, we do not consider this to be prohibitive. We therefore advocate the use of a MWh metric for electricity storage projects, set at a sensible level of at least 500MWh.

Scale and impact

The consultation document (page 16) recognises that projects will incur additional costs via the consenting system, as well as the additional time (1-2 years) it takes to gain consent via the NSIP process. Whilst the NSIP process works well for large-scale, nationally significant infrastructure projects, we do not consider this appropriate or proportional for electricity storage projects of 50MW or more.

For instance, we appreciate that hydro pumped storage projects may have a significant environmental and socio-economic impact, but we are not aware of any such proposals in England; our comments are made in relation to storage projects using electro-chemical technologies such as lithium-ion batteries, and we appreciate that other thresholds may be relevant for major hydro-electric schemes, compressed air energy systems and other future electricity storage technologies.

For context, a 50MW electricity storage project is equivalent in size and structure to an agricultural shed, which would generally be determined locally through the TCPA with minimal issue. Electricity storage projects of up to 200MW are unlikely to trigger requirements for Environmental Impact Assessment (EIA) and where they do, it is likely that many topics can be scoped out of EIA in most circumstances.

¹ MHCLG, *Land Use Change Statistics in England: 2016-17*, 31st May 2018, available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/712316/Land_use_change_statistics_England_2016-17.pdf

In areas where there is a demand for >50MW of storage, a number of companies (which may ultimately be owned by the same parent company) are developing <50MW projects. This effectively delivers >50MW of battery capacity in a small area, but in a much less economically efficient way than if a single >50MW development could be delivered through the TCPA regime. We would therefore welcome consideration of a higher threshold for electricity storage projects, above the current 50MW threshold.

We note that electricity substation buildings are similar in size and characteristics and have many of the similar potential environmental impacts to electricity storage facilities. Electricity substations below certain dimensions unless developed on DNO sites, are generally consented via the Town and Country Planning Act 1990 (TCPA) process. We consider this appropriate to the scale and potential impact of the proposed development. We therefore ask that further consideration is given to ensure the scale and potential impact of electricity storage projects are reflected within the planning process, within which development proposals must be assessed.

Time, resources and costs

As mentioned within our response to question 1, we do not agree with the conclusion that the associated costs of the NSIP process are insignificant. We would expect that taking an electricity storage project through the NSIPs procedure would cost hundreds of thousands of pounds, as opposed to several thousands of pounds for an application to the Local Authority. This is a very significant additional cost to developers, and is significantly more than 1-2% of upfront development costs. Therefore, in our view, the additional time, resource and costs of a more onerous, lengthy and substantially more expensive planning process is disproportionate to the potential impacts of the projects being brought forward and may ultimately deter investment in the electricity storage sector.

One of the primary drivers of the Planning Act process was to provide major projects with appropriate land acquisition powers. Given the relatively small footprint of this development type, this is unlikely to be applicable in the context of battery storage projects and in the circumstances, they are unlikely to benefit from the positive aspects of the NSIP process. Most storage projects do not involve multiple consents, nor do they require powers to divert public rights of way and other related matters and do not have the complex characteristics of most major infrastructure projects.

Although the statutory timescales for determination within the NSIP process are welcome, as this provides applicants with certainty in regards to the consenting timeframe, the overall NSIP process is far longer than the typical TCPA process (as the consultation document sets out the NSIP process could take at least 1-2 years longer than the TCPA) and this is particularly challenging for the proponents of electricity storage proposals. In fact, this 1-2-year delay is most significant because it prevents developers from entering contracts in a short time frame. If network operators issue tenders for storage projects that are required to deliver solutions within 1-2 years, then any project that goes through the NSIP regime would be ineligible for the tender. Without the ability to bid for such tenders, it would be much more difficult to build a business case for >50MW projects.

In addition, our members know from their practical experiences of the NSIP regime that the overall process is more extensive and requires additional resources internally and externally to manage the process, including via the examination phase, which may include public hearings. Coupled with the associated costs of resourcing this, and the additional fees for the application via the NSIP process, we would suggest that the time, resourcing and cost implications of the NSIP process for developers considering electricity storage developments is disproportionate, and may ultimately disadvantage the electricity storage sector.

In conclusion, we do not consider the scale of electricity storage projects of above 50MW to justify the additional time, resources and costs of the NSIP process. We note that new onshore wind projects are already carved out of the NSIP regime and different thresholds apply here. We therefore ask that further consideration is given to amending the threshold for electricity storage projects to at least 500MWh, or if a MW threshold is retained, to 200MW.

Alternatives

If BEIS is unwilling, or unable, to amend the thresholds in the Planning Act (2008), we suggest that a screening approach is developed for developments that breach the threshold but clearly have such a small impact as to make a full NSIPs application inappropriate. However, we would like to emphasise that this is our second preference, and we consider the most appropriate way to enable the sustainable development of storage projects to be raising the NSIPs threshold to at least 500MWh.

A screening approach could require any project that breaches a capacity threshold to be screened to decide whether or not it should be subject to the full NSIPs regime. Any project that, in the opinion of the Planning Inspectorate, has sufficiently little impact to warrant the full NSIPs regime could be passed back to the Local Authority to assess the application.

The eligibility for this screening approach could be capped, so that very large projects would always be required to be subject to the NSIPs regime. However, we do not consider such an approach to be necessary.

3. Do you agree with our approach to amending the Planning Act 2008 to allow a more appropriate approach to the NSIP threshold for composite projects involving electricity storage and another form of onshore non-wind generation?

In the absence of a more proportionate approach for electricity storage projects (i.e. Options 3 or 4), we support this approach, as it prevents the effective halving of the NSIPs threshold for composite projects. A composite project with 49MW of generation and 49MW of battery storage is likely to have a very similar impact to a 49MW generation project without battery storage. The additional storage is likely to be the size of several shipping containers, which is insignificant in its impact compared to, for example, a 49MW solar farm. This clarification therefore mitigates the risk of composite projects being forced into the NSIPs regime when they have barely more than half the impact of generation-only projects that remain in the TCPA regime

4. Do you agree that the current carve out from the NSIP regime for onshore wind generating stations is sufficiently clear to cover composite projects involving storage and onshore wind?

We would argue that if the current onshore wind carve out was applied to composite projects of onshore wind and storage, a perverse incentive would be created to avoid the appropriate planning procedure. A developer would only need to include a small or token amount of onshore wind assets to a development of >50MW of storage to avoid being taken through the NSIPs regime.

5. Are there any other areas of the planning system that you consider treat storage inappropriately relative to other forms of generation and therefore impact on its deployment?

We consider the current planning system to be generally appropriate for electricity storage other than the proposed alterations as per Option 3 and Option 4

It is considered that the permitted development regime left unaffected by these proposals would impact on electricity storage. To avoid this, storage proposals should be included as a form of permitted development as a new subsection (g) in Part 15 Class B Electricity Undertakings.

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